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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
MOORE, WILLIAM W	

ART UNIT	PAPER NUMBER
1652	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/830,837	SEIDAH ET AL.	
	Examiner	Art Unit	
	William W. Moore	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-32,36-38,40-56,59-68,72-74 and 80-113* is/are pending in the application.

4a) Of the above claim(s) *50,61-64,84-91 and 110-114* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-32,36-38,40-49,51-56,59,60,65-68,72-74,80-83 and 92-109* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's Amendment filed December 12, 2003, has been entered and its claim amendments and cancellations overcome rejections of record of claims herein under 35 U.S.C. §112, second paragraph, but necessitate new grounds of rejection under both the first and second paragraphs of 35 U.S.C. §112 where the amendments to claims 46, 47, and 51 introduce new matter and where amendatory terms in several claims raise issues of indefinite description. Claims 30-32, 36-38, 40-46, 59-68, 72-74, and 80-114 are now present in the application due to the cancellation of claims 1-29, 33-35, 39, 57-58, 69-71, and 75-79 and the addition of new claims 84-114 and claims 50 and 61-64 remain withdrawn from consideration as drawn to a non-elected invention for the reasons stated in the first communication on the merits mailed June 18, 2003. The new claims 84-91 and 110-114 may not be considered where they do not describe the subject matters that Applicant had elected for examination as explained below. This communication is not made final because new grounds of rejection under the first and second paragraphs of 35 U.S.C. §112 of claims 30, 32, 45, 51, 53, 56, and 66 are stated herein that might have been made in the communication mailed June 18, 2003.

Election/Restrictions

Newly submitted claims 84-91 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 84-91 describe a method of inhibition of an undesignated "SK-I activity" by contacting a 24kDa portion of a SK-I molecule with "SK-I", presumably an integral SK-I. Claims 110-114 describe a method of inhibition of an undesignated "SK-I activity" by contacting a cell with specific segments of the SK-I molecule having the amino acid sequence set forth in SEQ ID NO:6 or a corresponding amino acid sequence where the only indicated basis

for correspondence is a "mammalian" origin. These methods are not among methods of Groups 3 and 9, methods elected by Applicant for examination in the Response to the Restriction Requirement filed April 1, 2003, and examined in the first communication on the merits mailed June 18, 2003. Indeed, these newly claimed methods more resemble a method of the non-elected Group 12. Since Applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 84-91 and 110-114 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

New Matter

The amendment filed December 12, 2003, is objected to under 35 U.S.C. § 132 because it introduces new matter into the disclosure. 35 U.S.C. § 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Claims 46, 47, 51 recite negative limitations in their terminal clauses which are not present anywhere in the specification and claims 48, 49, 52, 54, 55, 59, and 60 depending therefrom are affected by these negative limitations to the extent that they do not describe a specific method or product. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 46-49, 51, 52, 54, 55, 59, and 60 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

This is a new ground of rejection necessitated by Applicant's amendment filed December 12, 2003. Claims 46, 47, and 51 recite negative limitations in their terminal clauses that are not found in the specification and claims 48, 49, 52, 54, 55, 59, and 60 depending therefrom are affected by these negative limitations to the extent that they fail to describe specific methods or products. Any negative limitation or exclusionary proviso in the claims must have basis in the original disclosure. Any claim containing a negative limitation which does not have basis in the original disclosure will be rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement and the mere absence of a positive recitation is not basis for an exclusion.

Claims 30-32, 36-38, 40-49, 65, 67, 68, 72-83, and 92-109 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

This is a new ground of rejection necessitated by Applicant's amendment filed December 12, 2003. Each of claims 30, 31, 46, and 47 recites "defined by . . . an amino acid sequence from another mammalian species corresponding to the sequence of" all or part of SEQ ID NO:6, but the specification defines neither the degree nor nature of a recited "correspond[ence]" thus the claims are considered to be an attempt to describe other, as yet unknown, SK-I proteases beyond the elected human protease and the two rodent proteases disclosed in the specification. Claims 32, 36-38, 40-45, 48, 49, 67, 68, 72-83, and 92-109 are included in this rejection because they depend from claims 30, 31, 46, 47 and 65, thus incorporate the inadequate written description of claims 30, 31, 46, 47 and 65. Neither the claims nor the specification describe where correspondent differences might occur, nor what they might be, and the specification fails to otherwise

disclose or suggest the nature or source of any of the generic proteins that meet the diffuse limitations of the claims. "While one does not need to have carried out one's invention before filing a patent application, one does need to be able to describe that invention with particularity" to satisfy the description requirement of the first paragraph of 35 U.S.C. § 112. *Fiers v. Revel v. Sugano*, 25 USPQ2d 1601, 1605 (Fed. Cir. 1993). In addressing the issue of whether a disclosure of a molecular structure of one polypeptide of one biological species could adequately describe the molecular structure of a functionally similar molecule of another biological species, the Court of Appeals for the Federal Circuit held that a claimed invention must be described with such "relevant identifying characteristic[s]" that the public could know that the inventor possessed the invention at the time an application for patent was filed, rather than by a mere "result that one might achieve if one had made that invention". *University of California v. Eli Lilly*, 119 F.3d 1559, 1568, 43 USPQ2d 1398, 1406 (Fed. Cir. 1997). Indeed, the claims rejected herein are, like the claims invalidated by the appellate panel in *University of California v. Eli Lilly*, designed to embrace other, as yet unknown, mammalian proteases. Nothing demonstrates that, at the time the specification was filed, Applicant was "able to envision" enough of the structure of any of these undisclosed generic proteins to provide the public with identifying "characteristics [that] sufficiently distinguish it . . . from other materials". *Fiers*, 25 USPQ2d at 1604 (citing *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 18 USPQ2d 1016, 1021 (Fed. Cir. 1991). The specification's treatment of the claimed subject matter is considered to be entirely prospective where skilled artisans in the relevant field of molecular biology could not predict the structure, or other properties, of the generic proteases, and composition comprising same, of claims 30, 31, 46, 47 and 65.

Claim 66 is rejected under 35 U.S.C. § 112, first paragraph, because the specification is not enabling for any embodiment of human protease having an

amino acid sequence that diverges from the amino acid sequence of SEQ ID NO:6 by amino acid substitutions, deletions and insertions, or combinations thereof at as many as 90% of the amino acid positions of SEQ ID NO:6. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, make and use the invention commensurate in scope with these claims.

This new ground of rejection is not necessitated by the claim amendments filed December 13, 2003, and for purposes of this rejection nucleotide sequence "homology" is conservatively construed as nucleotide sequence identity. The method of claim 66 is based on use of a product wherein the degree of amino acid sequence divergence of a protease from the amino acid sequence of a disclosed protease encoded is defined by a permissible variation in a claimed polynucleotide: the structural limitations of the claim permit a nucleotide sequence divergence of 30% and this results in scope of alteration that reaches as many as 897 amino acid positions in the 996-amino acid sequence of the mature protease of SEQ ID NO:6 alone, or 90% of its positions. Claim 66 has no limitation concerning codon positions where a nucleotide sequence may be altered, thus nucleotide substitutions occurring at 30% of the first codon positions will result in amino acid sequences that diverge at as much as 90% of the amino acid sequence positions of SEQ ID NO:6.[1] Mere sequence perturbation cannot enable design and preparation of nucleotide sequences encoding a myriad of divergent protease enzymes yet provide the public with a nucleotide sequence encoding an enzyme that retains its native function. It is well settled that the first paragraph of 35 U.S.C. § 112 requires that a disclosure be sufficiently enabling to allow one of skill in the art to practice the invention as claimed without undue experimentation and that unpredictability in an attempt to practice a claimed invention is a significant factor supporting a rejection under 35 U.S.C. §112, first paragraph, for non-enablement. See, *In re Wands*, 8 USPQ2d 1400, 1404

[1] 2988 nucleotides encoding a mature SK-1 protease X 0.3 = 896 altered nucleotides. Where alterations occur at first codon positions, 896 altered codons may specify 896 amino acid changes: 896/996 = 0.899 ≈ 90%.

(Fed. Cir. 1988) (recognizing and applying the "*Forman*" factors). Cf., *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat. App. & Int. 1986) (citing eight factors relevant to analysis of enablement). The standard set by the CCPA, the precursor of the Court of Appeals for the Federal Circuit, is not to "make and screen" any and all possible alterations because a reasonable correlation must exist between the scope asserted in the claimed subject matter and the scope of guidance the specification provides. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 25 (CCPA 1970) (scope of enablement varies inversely with the degree of unpredictability of factors involved in physiological activity of small peptide hormone). The Federal Circuit approved the standard set by the CCPA in *Genentech, Inc. v. Novo-Nordisk A/S*, 42 USPQ2d 1001 (Fed. Cir. 1997).

The Federal Circuit also considered whether definitional statements might enable a claim scope extending beyond a native amino acid sequence of a disclosed polypeptide product to embrace another, variant, polypeptide encoded by an altered DNA sequence. *Genentech, Inc. v. The Wellcome Found. Ltd.*, 29 F.3d 1555, 31 USPQ2d 1161 (Fed. Cir. 1994). The court held that only a narrow structural and functional definition was enabling precisely because the sweeping definitions of scope in the patent specification could not reasonably have been relied upon by the PTO in issuing the patent. *Genentech,* 29 F.3d 15 at 1564-65, 31 USPQ2d at 1168. Applying the "*Forman*" factors discussed in *Wands*, ***supra***, to Applicant's disclosure, it is apparent that:

a) the specification lacks adequate, specific, guidance for altering the amino acid sequence of the protease of SEQ ID NO:6 to the extent permitted in the claim,

b) the specification the amino acid sequence of the protease of SEQ ID NO:6 is altered to the extent recited in the claims,

c) in view of the prior art publications of record herein, the state of the art and level of skill in the art do not support such alteration, and,

d) unpredictability exists in the art where no members of the class of human kexin-related proteases represented by the amino acid sequence of SEQ ID NO:6, have had hundreds of amino acids identified for concurrent modification.

Thus the scope of subject matters of methods practiced with proteases encoded by polynucleotides having sequences embraced by the phrase, "at least 70% homology", is unsupported by the present specification even if taken in combination with teachings available in the prior art.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30-32, 36-38, 40-49, 51, 53, 56, 65-68, 72-83, and 92-109 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The following new grounds of rejection is necessitated by Applicant's amendment filed December 12, 2003. Each of claims 30, 31, 46, 47, and 92-97 recites "**defined by . . . an amino acid sequence** from another mammalian species **corresponding to the sequence of**" (emphases supplied) all or part of SEQ ID NO:6, but the specification defines neither the degree nor nature of a recited "correspond[ence]" thus the artisan and the public seeking to determine the scope of the claimed subject matter cannot determine the metes and bounds to which Applicant intends that the rights to a claimed invention should be enforced. In addition, claims 30, 31, 46, 47, and 92-97 are indefinite because they recite "**defined by . . . an amino acid sequence from another mammalian species**" (emphases supplied) but provide no antecedent basis for "another . . . species" where they fail to indicate a first, or reference, phylogenetic species. Claims 32, 36-38, 40-45, 48, 49, 65-68, 72-83, and 98-109 are included in this aspect of the rejection because they depend from claims 30, 31, 46, 47, and 92-97 thus incorporate the indefinite descriptions of claims 30, 31, 46, 47, and 92-97.

The following new grounds of rejection are not required by the amendment filed December 12, 2003, but could have been made in the communication mailed June 18, 2003. Claim 30 is indefinite in reciting "enzymatically active" because, where a specific

activity is disclosed, i.e., proteolysis, the use of the generic term "enzymatically" is ambiguous. Claims 36, 40-45, 65, 72, and 80-83 are included in this aspect of the rejection because they depend from claim 30 thus incorporate its indefinite description.

Claim 32 is independently indefinite in reciting "said part has a molecular weight of about 14 kDa" because this lesser part of a fragment of claim 31 has no particular amino acid sequence that permits calculation of a molecular mass and claim 32 does not indicate how a mass of "about 14 kDa" is determined. Claim 32 is further indefinite in reciting "a tight complex" because the term "tight" is a relative term and the claim does not indicate how a "tight" association is to be quantified. Claims 38, 68, 74 are included in this aspect of the rejection because they depend from claim 32 thus incorporate both of its indefinite descriptions. Claim 45 is independently indefinite in reciting, "in a cell growth" because this term is undefined.

Claims 51, 53 and 56 are each indefinite where none recites sequence identifiers for the amino acid sequences of the peptides they recite. This aspect of the rejection may be overcome by amending each claim insert a further clause that states the absent sequence identifier. Claim 46 is independently indefinite in reciting "contacting said substrate" in clause (a) and then indicating that the known substrates of a disclosed SK-1 serine protease are excluded in its terminal clause, leaving the nature of what is intended to be a substrate ambiguous. Claim 66 is indefinite in reciting "at least 70% homology" because it fails to indicate the nature of the nucleotide sequence homology intended, thus is susceptible of alternative constructions that render the scope of the claim ambiguous.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 30-32, 36-38, 40-47, 51-52, 54, 55, 65-68, 72-83, 92-97, and 104-109 are rejected under 35 U.S.C. § 102(e) as anticipated by Brown et al., U.S. Patent No. 6,322,962, of record.

Applicant's arguments filed December 12, 2003, have been fully considered but they are moot in view of the new ground of rejection necessitated by Applicant's unfortunate amendment filed December 12, 2003 introducing the claim limitation, "defined by . . . an amino acid sequence from another mammalian species corresponding to the sequence of", which can be considered to embrace any functionally-equivalent protease, or fragmentary protease disclosed by Brown et al. Brown et al.('962) is prior art under 35 U.S.C. §102(e) based on an August 14, 1998, priority date for its disclosure of the amino acid sequence set forth in SEQ ID NO:3 of Brown et al.('962) of a human Site-1 protease, a sequence identical to the amino acid sequence of the human SKI-1 protease set forth in SEQ ID NO:6 herein. As previously noted, the limitation "named SKI-1" in the claims provides no patentable distinction where nomenclature is subjective and the amino acid sequence of the Site-1 protease set forth in SEQ ID NO:3 of Brown et al.('962) is identical to that of the SKI-1 protease set forth in SEQ ID NO:6 herein. Brown et al.('962) is applied under 35 U.S.C. §102(e) as the ambiguous claim limitation "defined by . . . an amino acid sequence from another mammalian species corresponding to the sequence of" in claims 30, 31, 46, 47 and 65 from which claims 32, 36-38, 40-45, 48, 49, 67, 68, 72-83, and 92-109 ultimately depend, reaches the hamster and the human SKI-1 amino acid sequences disclosed by Brown et al.('962). The disclosures of Brown et al.('962) of manipulations of, expression of, proteolytic activity of, and substrate recognition of, a hamster SKI-1 protease, which

corresponds to the human protease, inherently anticipate manipulations of, expression of, proteolytic activity of, and substrate recognition of, a human SKI-1 protease.

Brown et al.('962) disclose, cols. 5-6 and Figure 4, the preparation of soluble forms of a human Site-1/SKI-1 protease having an amino acid sequence identical to, or corresponding to, SEQ ID NO:6 herein comprising a deletion of the transmembrane region beyond an amino acid position at "about 995", including positions "at about 1000" in order to provide a substantially less lipophilic version of the protease that retains proteolytic activity, said deletion in the protease amino acid sequence resulting from deletion of the nucleic acid sequence encoding the SKI-1 protease having the amino acids sequence set forth in SEQ ID NO:6. Brown et al.('962) further disclose, col. 16, lines 29-44, and Figures 11A and 11B, that cellular proteolysis of a portion of the prodomain of the SKI-1 that results in an amino terminus at position 187 permits its transport to the Golgi apparatus, well-known in the art as a portal to the secretory pathway in mammalian cells. Brown et al.('962) also disclose, cols. 16-17 and 62-64, the preparation of a variant polynucleotide encoding a truncated SKI-1 protease variant lacking the transmembrane region and transfection of a Chinese hamster ovary [CHO] cells with the variant polynucleotide to express, and then isolate, a soluble, truncated SKI-1 variant lacking a transmembrane region and having an amino terminus at position 187 of SEQ ID NO:6, thus anticipating claims 30, 45, 46, 65 and 66 where the cleavage produces a correspondent SKI-1 enzyme having a carboxyl-terminus at position 996 yet lacking a transmembrane region. The fragment is released into the medium of the CHO cells thus Brown et al.('962) disclose a composition of claim 65. Because the SKI-1 protease prodomain cleaved in producing the truncated SKI-1 variant lacking that has an amino terminus at position 187 of SEQ ID NO:6 is itself a substrate of the protease, Brown et al.('962) disclose processes of claims 45 and 66 that produce the product of

claim 30 and also result in the cleavage of a substrate of claim 46 which is not a sterol-regulatory element-binding protein [SREBP]. Brown et al.('962) further anticipate claim 46 in disclosing, col. 17, lines 54-14, that the soluble, truncated SKI-1 variant lacking a transmembrane region and having an amino terminus at position 187 of SEQ ID NO:6 cleaves two artificial substrates that have peptide sequence of native substrates of SKI-1, one of which is not present in a SREBP and the other of which was a peptide substrate no longer within a SREBP.

Brown et al.('962) also anticipate limitations of claims 31-33, 67-69, and 92-97 in disclosing, cols. 10 and 16 and Fig. 11A, that, following cleavage of the signal peptide region, the initial cleavage of the prodomain region results in a peptide having an amino-terminus at about 18 and a carboxyl-terminus at position 137 which is secreted into the culture medium. This peptide has a molecular weight of about 14kDa, meeting limitations of claims 31 and 32, and is inherently capable of binding to an SKI-1 protease having, an amino acid sequence from position 18 through position 1052, more specifically that part having the sequence from position 138 through position 1052 to which it was bound prior to cleavage and which, see Brown et al.('962) at col. 16, line 33, is inhibitory to SKI-1 protease activity in association with the protease according to claim 33. The peptide is also a fragment of claim 32 and inherently capable of forming a "tight complex" with a soluble SKI-1 protease that lacks the transmembrane domain of SEQ ID NO:6, meeting structural limitations of claim 31, and also meets the functional limitations of claim 33. Because Brown et al.('962) disclose that the SKI-1 prodomain fragment is secreted into the medium, they also disclose compositions of claims 67-69 and 104-108.

Brown et al.('962) further disclose, at cols. 3-4, 66-71 and Figures 22 and 24, the methods of claims 47-49, the peptides of claims 51-52, 54 and 55, notably the peptide

set forth in SEQ ID NO:55 of Brown et al.('962), and the related methods of claims 59 and 60. This is because Brown et al.('962) disclose that they used a soluble SKI-1 produced recombinantly in cells transfected with a polynucleotide encoding a soluble SKI-1 protease conforming to limitations of clause (a) of claim 47 to cleave numerous peptide substrates, often flourogenically-labelled, often recovered for sequence determination, but not SREBPs, including the peptide set forth in their SEQ ID NO:55, which conforms to limitations of claims 51 and 52, which process is inherently a process of claims 59 and 60 because these claims neither require nor identify multiple candidate polypeptides used in methods for screening for SKI-1 activity or monitoring SKI-1 activity.

Claims 36, 40-44, 72, and 80-83 are anticipated by disclosures spanning cols. 4-5 of Brown et al.('962) of the preparation of expression constructs comprising an inducible promoter and a polynucleotide encoding a catalytically active SKI-1 and a transgenic cell comprising the expression constructs, as well as disclosures at the close of col. 5 and at cols. 22-33 of Brown et al.('962) of a polynucleotide encode a soluble, truncated, SKI-1, numerous recombinant, viral, expression vectors and host cells transformed therewith. Because claim 31 herein does not require that a soluble enzymatically active SKI-1 fragment be produced without a prodomain, indeed the specification discloses no such production of a soluble fragment unless it is expressed with the prodomain to ensure proper folding of the catalytic domain of this protease of the subtilase class of serine proteases, a polynucleotide of claim 36 is considered to encode a truncated SKI-1 capable of providing a soluble, truncated, SKI-1 having an amino-terminus at position 187 of SEQ ID NO:6 herein upon cleavage of the prodomain. Thus Brown et al.('962) inherently disclose the subject matters of claims 36, 40-44, 72, and 80-83 herein.

Conclusion

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William W. Moore whose telephone number is now 571.272.0933. The examiner can normally be reached between 9:00AM and 5:30PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapura Achutamurthy, can now be reached at 571.272.0928. The fax phone numbers for all communications for the organization where this application or proceeding is assigned remains 703.872.9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is now 571.272.1600.

William W. Moore
May 3, 2004

NASHAAT T. NASHED PHD.
PRIMARY EXAMINER